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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Zachariah Stockwell

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EXAMINER

ZARE, SCOTT A

ART UNIT

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3687

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/720,698	Applicant(s) STOCKWELL ET AL.	
	Examiner SCOTT A. ZARE	Art Unit 3687	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 01/26/2010 has been entered.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Independent claims 1, 17, and 20 recite the following limitation:

Using the processor to form a shipment plan by iteratively assigning *a defined minimum size allotment of the parts* to a customer location having a current highest priority and then reprioritizing the priorities of all locations and *again* assigning *the defined minimum size allotment of the parts* to a customer location having a new current highest priority, until one of all of the parts from inventory have been assigned and no customer location needs more of the parts assigned, wherein each current highest priority is determined from all locations for each iteration.

Art Unit: 3687

As currently presented, it is ambiguous as to whether the recited allotment of parts is assigned to one customer location, and then the same actual parts which were assigned to the first customer location (i.e., the defined minimum size allotment of the parts) are then reassigned to another customer location, or whether, the limitation merely requires the minimum size allotment for each allotment of parts to be the same quantity. Consequently, correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-15, 17 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by *Jenkins et al.* (US 2002/0188499, referred hereinafter as “*Jenkins*”, filed October 29, 2001).

In regard to claims 1, 17, and 20, as best understood, *Jenkins* teaches a computer-implemented method for distributing parts to customer locations in a volume-based fair share mode, comprising the steps:

Art Unit: 3687

- using a processor to prioritize requests for parts from inventory (see paragraphs 178-180);
- using a processor to prioritize locations that have need for the parts (see paragraphs 178-180); and
- using a processor to form a shipment plan by iteratively assigning a defined minimum size allotment of the parts (see paragraph 181 and 189, disclosing “major shipping quantity”) to the location having the current highest priority (paragraph 236) and then reprioritizing the priorities of all locations and again assigning the defined minimum size allotment of the parts to a customer having a new current highest priority, until one of all of the parts from inventory have been assigned and no location needs more of the parts assigned (see paragraph 272, disclosing “recalculat[ing] priority values”).

In regard to claim 2, *Jenkins* teaches a method further comprising defining the minimum size allotment (see paragraph 181 and 189, disclosing “major shipping quantity”).

In regard to claim 3, *Jenkins* teaches a method wherein each location having a need for the parts from inventory has a percentage need for said parts, and wherein the forming a shipment plan includes assigning the minimum size allotment to a highest priority location in each iteration and thereafter re-assigning the priorities such that each location having a need is driven to the same percentage need (see paragraph 205).

In regard to claim 4, *Jenkins* discloses all elements of the claimed invention, but fails to explicitly disclose performing a pallet size pass on the shipment plan. (See paragraph 266.)

In regard to claim 5, *Jenkins* discloses a pallet size pass based on a threshold quantity at which multiples of shippers are cut in full pallets. (See paragraph 266.)

In regard to claim 6, *Jenkins* discloses a pallet quantity that is a quantity of parts that constitutes a full pallet. (See paragraph 266.)

In regard to claim 7, *Jenkins* discloses a shipper that passes through the pallet size pass that has a number of parts greater than the threshold quantity and equal to or less than the pallet quantity. (See paragraph 266.)

In regard to claim 8, *Jenkins* discloses a volume based filter pass on the shipment plan. (See paragraph 266.)

In regard to claim 9, *Jenkins* discloses a based filter pass based on a minimum shipment quantity defining a smallest amount of parts for a specific location or part type. (See paragraph 189, disclosing “major ship quantity”)

Art Unit: 3687

In regard to claim 10, *Jenkins* discloses wherein the volume based filter pass is based on a percentage impact threshold that is a function of a recommended shipper and a target inventory for a specific location or part type (See paragraph 206, disclosing “fair-share allocation”)).

In regard to claim 11, *Jenkins* discloses wherein the parts are shipped from a single source (see Claim 19).

In regard to claim 12, *Jenkins* discloses wherein the parts are shipped from multiple sources, and further comprising determining splitting the source of the parts to fulfill the requests for parts from the locations (see paragraph 224).

In regard to claim 13, *Jenkins* discloses wherein the determining includes forming a balanced supply/demand (See entire disclosure).

In regard to claim 14, *Jenkins* discloses wherein the determining further comprises using geographic/local sales rules in which specified geographic and local sales shipments are prioritized over optimization of shipments (See paragraph 234).

In regard claim 15, *Jenkins* discloses wherein the determining further comprises using a business rule filtering in which specified business rules are prioritized over optimization of shipments (See paragraph 234).

In regard to claim 20, *Jenkins* teaches a system for determining distribution of goods to customer locations, comprising:

a processor that receives requests for parts to be delivered to customer locations (see paragraphs 57-58 and FIGS 1A-1B); and

means for forming a shipment plan of the goods to the customer locations on a volume-based fair share basis (See paragraph 232).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Jenkins* in view of *Chappel* (US 7,236,940).

In regard to claim 16, *Jenkins* fails to explicitly disclose creating a set of all supply demand scenarios with all possible combinations of fully providing available supply to a demand point in a matrix, and subsequently performing a sum of squares on the matrix, with the highest sum of squares forming a shipment plan.

Chappel teaches a method and system for accessing and planning business operations utilizing rule-based statistical modeling including creating a set of all supply

Art Unit: 3687

demand scenarios with all possible combinations of fully providing available supply to a demand point in a matrix, and subsequently performing a sum of squares on the matrix, with the highest sum of squares forming a shipment plan (See column 7 at lines 45-47, via a statistical business model calculating the sum-of-squares).

Therefore, it would have been obvious for a person having ordinary skill in the art at the time the invention was made to modify Jenkins to include old and well know methods of statistical modeling as taught by *Chappel* in order to calculate a deviation from a mean, the highest deviation representing the highest priority.

Claims 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Jenkins* in view of *Benda et al.* (US 6,937,992, referred hereinafter as "*Benda*").

In regard to claim 18, *Jenkins* fails to explicitly disclose performing lot sizing optimization after the shipment plan is formed.

Benda teaches a transport vehicle capacity maximization logistics system and method including performing lot sizing optimization after the shipment plan is formed (See col. 11 at lines 56-58, via optimization of pallets for each given SKU).

From the disclosure of *Benda*, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system and method for order based planning as taught by *Jenkins* to include optimizing shipments before they are delivered in order to decrease shipping costs.

Art Unit: 3687

In regard to claim 19, *Jenkins* fails to explicitly disclose splitting the shipping of the parts when there are multiple sources of the parts.

Benda teaches a transport vehicle capacity maximization logistics system and method including splitting the source of the parts when there are multiple sources of the parts (See col. 14 at lines 12-14, via merchandise that is shipped from multiple sources being optimized at a cross-dock for shipment to the same distributor).

From the disclosure of *Benda*, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system and method for order-based planning as taught by *Jenkins* to include optimizing shipments before they are delivered in order to decrease shipping costs.

Response to Arguments

Applicant's arguments filed 01/26/2010 have been fully considered but they are not persuasive.

Claim Rejections - 35 USC § 102

The cited reference of *Jenkins* has been traversed by applicant in that it lacks certain elements of applicant's claimed method. In regard to claim 1, applicant specifically argues that "Jenkins does not teach or suggest 'a shipment plan by iteratively assigning a defined minimum size allotment of the parts to a customer location having a current highest priority and then reprioritizing the priorities of all locations and again assigned the defined.'" See *Remarks*, 01/26/2010, pg. 8. In support

Art Unit: 3687

of this contention, applicant asserts that “rather than an iterative process of reprioritization after each allocation before the subsequent allocations, as claimed in Claim 1, Jenkins teaches that un using a fair-share allocation, each location is allocated a portion of the available inventory before reprioritizing for the next fair-share allocation, wherein each location is again allocated a portion of the remaining available inventory.

The Examiner relies on paragraph 272 of *Jenkins* to disclose the recited iterative step. Paragraph 272 discloses that “every time the automated load builder 310 adds a shipment to the load, it automatically recalculates priority values and re-sorts recommended shipments by priority.” Based on this language alone, Applicant concludes that “Jenkins in paragraph 0272 is teaching the prioritization of shipments to optimize the load” rather than the reprioritization of locations, as claimed in Claim 1.

First, it should be noted that the Examiner agrees that *Jenkins* teaches the use of a fair-share allocation method in some situations, such as when there is not enough stock to meet demand and “if two or more destinations have demand with the same need to ship date and the same location and demand type priority).”) See paragraph 228. In such situations, “a fair-share method [is used] to distribute the available stock to all destinations, according to their demand percentages. See paragraph 228.

However, a close review of the automated load builder 310 of *Jenkins* reveals that “the automated load builder 310 dialog allow[s] the user to define the priority for adding shipments to a partially filled load. Each of these options has either a reward or penalty associated with it.” Based on such a priority system “the automated load builder 310 calculates a priority value for each recommended shipment between the source

Art Unit: 3687

and destinations it is working with by adding values for rewards and subtracting values for penalties.” See paragraph 270. For example, “[t]he automated load builder 310 generally includes at least one must go shipment on every load that it creates. If none of the recommended shipments between a source and destination qualifies as a must go shipment, the automated load builder 310 cannot generate a load for that source/destination pair.” See paragraph 263. Consequently, the Examiner takes the position that because the automated load builder 310 takes into account the "destination" when prioritizing shipments, *Jenkins* teaches the reprioritizing of locations.

Consequently, based on the preceding analysis of *Jenkins* in view of the currently presented claim limitations, the examiner finds applicant's arguments in regard to claim 1 unpersuasive. Furthermore, in regard to claims 17 and 20, applicant relies on a similar argument as discussed above in regard to claim 1, which similarly found unpersuasive.

Claim Rejections - 35 USC § 103

The rejections under 35 USC §103 have been traversed. Applicant argues that because *Jenkins* does not anticipate the independent claims, all further limitations found in dependent claims must also be allowable. However, based on the above 35 USC §102 analysis, *Jenkins* has been found to anticipate claims 1-15, 17, and 20. Thus, this argument is not persuasive.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hegde et al., US 2002/0198757 (Method for allocating limited component supply and capacity to optimize production scheduling)

Denton et al., US 2005/0171786 (Method of fair sharing limited resources between multiple customers)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SCOTT A. ZARE whose telephone number is (571)270-3266. The examiner can normally be reached on Monday - Friday, 8:00 a.m. - 5:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Gart can be reached on (571) 272-3955. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3687

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Matthew S Gart/
Supervisory Patent Examiner, Art
Unit 3687

Scott A. Zare
Patent Examiner, Art Unit 3687
February 27, 2010